INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/018131

		1 101/012	004/010131
	CATION OF SUBJECT MATTER H01L31/02, H01S5/022		
According to Int	ernational Patent Classification (IPC) or to both national	al classification and IPC	
B. FIELDS SE			
Minimum docum	nentation searched (classification system followed by cl H01L31/02, H01S5/00-5/50, G07	lassification symbols) 2B6/42	
Documentation s	searched other than minimum documentation to the exte		fields searched
		oroku Jitsuyo Shinan Koho tsuyo Shinan Toroku Koho	1994-2004 1996-2004
Electronic data b	pase consulted during the international search (name of	data base and, where practicable, search te	rms used)
		<u>. </u>	
C. DOCUMEN	TS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where ap	propriate, of the relevant passages	Relevant to claim No.
Y	JP 2001-168449 A (Mitsubishi 22 June, 2001 (22.06.01), Full text; all drawings (Family: none)	Electric Corp.),	1-7,9,10
Y	JP 2002-111599 A (Fujitsu Lt 12 April, 2002 (12.04.02), Full text; all drawings (Family: none)	d.),	1-7,9,10
Y	JP 2002-223023 A (NEC Corp.) 09 August, 2002 (09.08.02), Par. No. [0006] & US 2003/91303 A1	,	1-7,9,10
× Further do	cuments are listed in the continuation of Box C.	See patent family annex.	
Special categories of cited documents: document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)		"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is	
"O" document referring to an oral disclosure, use, exhibition or other means document published prior to the international filing date but later than the priority date claimed		combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family	
Date of the actual completion of the international search 25 February, 2005 (25.02.05)		Date of mailing of the international search report 08 March, 2005 (08.03.05)	
Name and mailing address of the ISA/ Japanese Patent Office		Authorized officer	
Faccimile No.		Telephone No.	

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Υ	JP 7-162186 A (Fujitsu Ltd.), 23 June, 1995 (23.06.95), Full text; all drawings & US 5535034 A	1-7,9,10
А	JP 2001-210841 A (Sumitomo Electric Industries, Ltd.), 03 August, 2001 (03.08.01), Full text; all drawings & US 2001/16094 A1	4
	JP 5-300188 A (Hitachi, Ltd.), 12 November, 1993 (12.11.93), Full text; all drawings & EP 567081 A2 & US 5448661 A	1-10
А	JP 5-335603 A (Sumitomo Electric Industries, Ltd.), 17 December, 1993 (17.12.93), Full text; all drawings (Family: none)	1-10
A	JP 10-65079 A (Motorola, Inc.), 06 March, 1998 (06.03.98), Full text; all drawings & US 5808325 A	1-10
P.	JP 2003-229625 A (Sumitomo Electric Industries, Ltd.), 15 August, 2003 (15.08.03), Full text; all drawings (Family: none)	1-10
A	JP 2001-345475 A (Matsushita Electric Industrial Co., Ltd.), 14 December, 2001 (14.12.01), Full text; all drawings (Family: none)	1-10
А	JP 62-194686 A (NEC Corp.), 27 August, 1987 (27.08.87), Full text; all drawings (Family: none)	1-10